

CLAIMS

What is claimed:

1. A frame-level thermal interface component, comprising:
a frame-level thermal interface subcomponent for mounting to a frame of a computer system, having an outer surface for mating with an outer surface of a chassis component of a server unit subassembly inserted into the frame, the outer surface of the frame-level thermal interface subcomponent being profiled so as to have at least first and second portions that are at an angle other than 0° relative to one another.
2. The frame-level thermal interface component of claim 1 wherein at least the first portion is at an angle between 0° and 90° relative to a direction in which the chassis component is moved when the surfaces mate with one another.
3. The frame-level thermal interface component of claim 2 wherein the second portion is at an angle between 0° and 90° relative to a direction in which the chassis component is moved when the surfaces mate with one another.
4. The frame-level thermal interface component of claim 1 wherein the outer surface of the frame-level thermal interface subcomponent is recessed.

5. The frame-level thermal interface component of claim 3 wherein the outer surface of the frame-level thermal interface subcomponent is recessed.
6. The frame-level thermal interface component of claim 5 wherein the portions are straight.
7. The frame-level thermal interface component of claim 1, further comprising: at least a first set of fins on the frame-level thermal interface subcomponent.
8. The frame-level thermal interface component of claim 7 wherein the outer surface of the frame-level thermal interface subcomponent and the fins are located on the same side of the frame-level thermal interface subcomponent.
9. The frame-level thermal interface component of claim 8 wherein the surface has a height and a width with a substantially constant cross-section along its width, and the fins extend substantially horizontally along the frame-level thermal interface subcomponent.
10. The frame-level thermal interface component of claim 7 wherein the surface of the frame-level thermal interface subcomponent has a height and a width with a substantially constant cross-section along its width, and the fins extend substantially vertically along the frame-level thermal interface subcomponent.

11. The frame-level thermal interface component of claim 10 wherein the outer surface of the frame-level thermal interface subcomponent and the fins are on different sides of the frame-level thermal interface subcomponent.
12. The frame-level thermal interface component of claim 11 wherein the outer surface of the frame-level thermal interface subcomponent and the fins are on opposing sides of the frame-level thermal interface subcomponent.
13. The frame-level thermal interface component of claim 7, further comprising: a second set of fins, the first and second sets of fins being located on different sides of the frame-level thermal interface subcomponent.
14. The frame-level thermal interface component of claim 1 wherein the frame-level thermal interface subcomponent has an internal volume, an inlet into the internal volume, and an outlet out of the internal volume, heat transferring from the external surface of the frame-level thermal interface subcomponent through a wall of the frame-level thermal interface subcomponent to a fluid in the internal volume.
15. The frame-level thermal interface component of claim 14 wherein the frame-level thermal interface component has a baffle which divides the internal volume into at least first and second chambers, the fluid flowing sequentially through the

first and second chambers.

16. The frame-level thermal interface component of claim 15 wherein the inlet and outlet are on the same side of the frame-level thermal interface subcomponent.

17. The frame-level thermal interface component of claim 14, further comprising:
a set of fins on and extending from the frame-level thermal interface
subcomponent.

18. The frame-level thermal interface component of claim 17 wherein the surface
has a height and a width with a substantially constant cross-section along its width,
and the fins extend substantially horizontally along the frame-level thermal
interface subcomponent.

19. A frame-level thermal interface component, comprising:
a frame-level thermal interface subcomponent for mounting to a frame of a
computer system, having an outer surface for mating with an outer surface of a
chassis component of a server unit subassembly inserted into the frame; and
at least a first set of fins on the frame-level thermal interface subcomponent.

20. The frame-level thermal interface component of claim 19 wherein the outer
surface of the frame-level thermal interface subcomponent and the fins are on

opposing sides of the frame-level thermal interface subcomponent.

21. The frame-level thermal interface component of claim 20 wherein the surface of the frame-level thermal interface subcomponent has a height and a width more than the height, and the fins extend substantially vertically along the frame-level thermal interface subcomponent.

22. A frame-level thermal interface component, comprising:

a frame-level thermal interface subcomponent for mounting to a frame of a computer system, having a wall with an outer surface for mating with an outer surface of a chassis component of a server unit subassembly inserted into the frame, an internal volume partially defined by an inner surface of the wall, an inlet into the internal volume, an outlet out of the internal volume, and a baffle separating the internal volume into at least first and second chambers, a fluid flowing through the inlet from the inlet into the first chamber and over the inner surface while in the first chamber, from the first chamber into the second chamber and over the inner surface while in the second chamber, and from the second chamber through the outlet.

23. The frame-level thermal interface component of claim 22, further comprising:

a set of fins on and extending from the frame-level thermal interface subcomponent.

24. The frame-level thermal interface component of claim 22 wherein the surface has a height and a width with a substantially constant cross-section along its width, and the fins extend substantially horizontally along the frame-level thermal interface subcomponent.

25. A server computer frame subassembly comprising:
a frame capable of receiving a server unit subassembly; and
a frame-level thermal interface component on the frame, the frame-level thermal interface component including a frame-level thermal interface subcomponent having an outer surface for mating with an outer surface of a chassis component of the server unit subassembly when being inserted into the frame.

26. The server computer frame subassembly of claim 25 wherein the outer surface of the frame-level thermal interface subcomponent is profiled so as to have at least first and second portions that are at an angle other than 0° relative to one another.

27. The server computer frame subassembly of claim 26 wherein at least the first portion is at an angle between 0° and 90° relative to a direction in which the server unit subassembly is moved into the frame.